

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A data communications system for communicating a data signal formed of successive data elements, said system comprising a transmission node[[;]], a reception node[[;]], and a link providing a data connection from said transmission node to said reception node[[;]],

said transmission node comprising:

[[(i)]] a clocking-signal transmitter configured to transmit ~~for transmitting~~ a ~~synchronisation~~ synchronization clocking signal to said reception node via said link, said ~~synchronisation~~ synchronization clocking signal having synchronizing ~~synchronising~~ features occurring at a frequency lower than a data element rate; and

[[(ii)]] an assembler configured to assemble ~~for assembling~~ elements of said data signal into data frames, each data frame having a plurality of successive data elements of said data signal, for transmission to said reception node via said link, said assembler being responsive to said ~~synchronisation~~ synchronization clocking signal so as to set a ~~synchronisation~~ synchronization flag associated with a data frame containing a data element having a first predetermined temporal relationship with a synchronizing ~~synchronising~~ feature of said ~~synchronisation~~ synchronization clocking signal and to position such a data element at a predetermined position within the data frame; and

said reception node comprising:

[[(i)]] a detector configured to detect ~~for detecting~~ a synchronizing ~~synchronising~~ feature of said ~~synchronisation~~ synchronization clocking signal received from said transmission node;

[[(ii)]] a disassembler configured to disassemble ~~for disassembling~~ received data frames to regenerate said data signal, said disassembler being operable to detect a data element associated with a set ~~synchroisation~~ synchronization flag; and

[[(iii)]] an output unit configured to output ~~for outputting~~ a data element associated with a set ~~synchroisation~~ synchronization flag at a second predetermined temporal relationship with respect to said synchronizing ~~synchroising~~ feature of said received ~~synchroisation~~ synchronization clocking signal[[;]],

wherein said first and second predetermined temporal relationships are ~~being~~ arranged so that a predetermined system latency exists between input of a data element to said transmission node and subsequent output of that data element by said reception node.

Claim 2 (Canceled).

Claim 3 (Currently Amended): The ~~The~~ [[A]] system according to claim 1 ~~[[2]]~~, wherein ~~in which~~ said predetermined position is a first-transmitted data element position within the ~~that~~ data frame.

Claim 4 (Currently Amended): ~~A system according to claim 1, in which:~~ A data communications system for communicating a data signal formed of successive data elements, said system comprising a transmission node, a reception node, and a link providing a data connection from said transmission node to said reception node,

said transmission node comprising:

a clocking-signal transmitter configured to transmit a synchronization clocking signal to said reception node via said link, said synchronization clocking signal having synchronizing features occurring at a frequency lower than a data element rate;

an assembler configured to assemble elements of said data signal into data frames, each data frame having a plurality of successive data elements of said data signal, for transmission to said reception node via said link, said assembler being responsive to said synchronization clocking signal so as to set a synchronization flag associated with a data element having a first predetermined temporal relationship with a synchronizing feature of said synchronization clocking signal; and

~~said transmission node comprises~~ a data clock transmitter configured to transmit ~~for transmitting~~ a data clock to said receiving node via said link, said data clock defining said timing of said data elements or components of said data elements; and

said reception node comprising:

a detector configured to detect a synchronizing feature of said synchronization clocking signal received from said transmission node;

a disassembler configured to disassemble received data frames to regenerate said data signal, said disassembler being operable to detect a data element associated with a set synchronization flag;

an output unit configured to output a data element associated with a set synchronization flag at a second predetermined temporal relationship with respect to said synchronizing feature of said received synchronization clocking signal; and

~~said reception node comprises~~ a data clock receiver configured to receive ~~for receiving~~ said data clock from said transmitting node and output ~~for outputting~~ said data elements in accordance with said received data clock,

wherein said first and second predetermined temporal relationships are arranged so that a predetermined system latency exists between input of a data element to said transmission node and subsequent output of that data element by said reception node.

Claim 5 (Currently Amended): The ~~[[A]]~~ system according to claim 4, wherein ~~in~~ ~~which~~ said data clock transmitter is configured ~~operable~~ to transmit a Multipoint Low-Voltage Differential Signaling ~~Signalling~~ signal to said receiving node.

Claim 6 (Currently Amended): The ~~[[A]]~~ system according to claim 4, wherein ~~in~~ ~~which~~:

said transmission node comprises a combiner configured to combine ~~for combining~~ said synchronization ~~synchro~~~~nisation~~ clocking signal and said data clock to form a multiplexed clock signal for transmission to said reception node via said link; and

said reception node comprises a demultiplexer configured to demultiplex ~~for~~ ~~demultiplexing~~ said synchronization ~~synchro~~~~nisation~~ clocking signal and said data clock from said multiplexed clock signal.

Claim 7 (Currently Amended): The ~~[[A]]~~ system according to claim 6, wherein ~~in~~ ~~which~~ said combiner comprises a timing adjuster configured to adjust ~~for adjusting~~ the timing of a subset of clock pulses of said data clock signal in dependence on a synchronizing ~~synchro~~~~nising~~ feature of said synchronization ~~synchro~~~~nisation~~ clocking signal.

Claim 8 (Currently Amended): The ~~[[A]]~~ system according to claim 7, wherein ~~in~~ ~~which~~:

said data clock is defined with respect to a periodic reference clock edge;

said transmission node is configured ~~operable~~ to adjust the timing of one or more clock edges of said data clock other than the reference edges in response to a synchronizing ~~synchro~~~~nising~~ feature of said synchronization ~~synchro~~~~nisation~~ clocking signal; and

said reception node comprises a timing deviation detector configured to detect ~~for detecting~~ timing deviations in clock edges of said data clock other than the reference edges.

Claim 9 (Currently Amended): The [[A]] system according to claim 1, wherein in
~~which~~ said transmission node is responsive to an externally supplied synchronization
~~synchronisation~~ clocking signal.

Claim 10 (Currently Amended): ~~A system according to claim 1, in which~~ A data
communications system for communicating a data signal formed of successive data elements,
said system comprising a transmission node, a reception node, and a link providing a data
connection from said transmission node to said reception node,

said transmission node comprising:

a clocking-signal transmitter configured to transmit a synchronization clocking
signal to said reception node via said link, said synchronization clocking signal having
synchronizing features occurring at a frequency lower than a data element rate; and

an assembler configured to assemble elements of said data signal into data
frames, each data frame having a plurality of successive data elements of said data signal, for
transmission to said reception node via said link, said assembler being responsive to said
synchronization clocking signal so as to set a synchronization flag associated with a data
element having a first predetermined temporal relationship with a synchronizing feature of
said synchronization clocking signal; and

said reception node comprising:

a detector configured to detect a synchronizing feature of said synchronization
clocking signal received from said transmission node;

a disassembler configured to disassemble received data frames to regenerate said data signal, said disassembler being operable to detect a data element associated with a set synchronization flag; and

an output unit configured to output a data element associated with a set synchronization flag at a second predetermined temporal relationship with respect to said synchronizing feature of said received synchronization clocking signal, said output unit comprises comprising a time delay arrangement, so that data elements from a data frame associated with a set ~~synchronization~~ ~~synchronisation~~ flag are output a predetermined delay time after said reception node receives said ~~synchronizing~~ ~~synchronising~~ feature of said ~~synchronization~~ ~~synchronisation~~ clocking signal,

wherein said first and second predetermined temporal relationships are arranged so that a predetermined system latency exists between input of a data element to said transmission node and subsequent output of that data element by said reception node.

Claim 11 (Currently Amended): The ~~[[A]]~~ system according to claim 10, wherein in ~~which~~ said predetermined delay time is substantially equal to a latency time required by said transmission node and said reception node to handle a data element for transmission via said link.

Claim 12 (Currently Amended): ~~A system according to claim 1, said transmission node having:~~ A data communications system for communicating a data signal formed of successive data elements, said system comprising a transmission node, a reception node, and a link providing a data connection from said transmission node to said reception node,
said transmission node comprising:

a clocking-signal transmitter configured to transmit a synchronization clocking signal to said reception node via said link, said synchronization clocking signal having synchronizing features occurring at a frequency lower than a data element rate; and

an assembler configured to assemble elements of said data signal into data frames, each data frame having a plurality of successive data elements of said data signal, for transmission to said reception node via said link, said assembler being responsive to said synchronization clocking signal so as to set a synchronization flag associated with a data element having a first predetermined temporal relationship with a synchronizing feature of said synchronization clocking signal, said assembler comprising a frame assembly arrangement ~~configured operable~~ to receive input data elements at an input data rate and to buffer the input data elements prior to performing a frame assembly operation in which buffered data is retrieved and assembled to form the framed data, said frame assembly arrangement ~~being operable~~ configured to output said framed data for transmission at a framed data rate; and

said reception node comprising:

a detector configured to detect a synchronizing feature of said synchronization clocking signal received from said transmission node;

a disassembler comprising ~~and said receiving node having:~~ a frame receiving arrangement ~~configured operable~~ to receive framed data from said transmission node at said framed data rate and to buffer said received framed data, and to disassemble said buffered received frame data to regenerate said data signal, said disassembler configured to detect a data element associated with a set synchronization flag prior to performing frame disassembly to produce output data elements at an output data rate; and

an output unit configured to output a data element associated with a set
synchronization flag at a second predetermined temporal relationship with respect to said
synchronizing feature of said received synchronization clocking signal,

wherein said first and second predetermined temporal relationships are arranged so
that a predetermined system latency exists between input of a data element to said
transmission node and subsequent output of that data element by said reception node, and in
~~which~~ output of framed data is commenced by said frame assembly arrangement prior to
assembly of a complete frame and output of data blocks is commenced by said frame
receiving arrangement prior to disassembly of a complete frame of received framed data.

Claim 13 (Currently Amended): The [[A]] system according to claim 1, wherein in
~~which~~ said data elements are samples of a one-bit signal.

Claim 14 (Currently Amended): The [[A]] system according to claim 1, wherein in
~~which~~ said data elements are plural-bit data words.

Claim 15 (Currently Amended): The [[A]] system according to claim 14, wherein in
~~which~~ said data elements comprise audio samples.

Claim 16 (Currently Amended): The [[A]] system according to claim 15, wherein in
~~which~~ said data elements are derived from AES3 standard audio sample subframes.

Claim 17 (Currently Amended): The [[A]] system according to claim 15, wherein in
~~which~~ said data elements are derived from one-bit, delta-sigma modulated audio samples.

Claim 18 (Currently Amended): The [[A]] system according to claim 4, wherein ~~in~~
~~which~~:

said data clock defines the timing of individual data bits of each data word;

said transmission node and said reception node operate in accordance with a word
clock, being a sub-multiple of said data clock, to define the timing of individual data words.

Claim 19 (Currently Amended): The [[A]] system according to claim 18, wherein ~~in~~
~~which~~ said synchronizing ~~synchronising~~ feature of said synchronization ~~synchronisation~~
clocking signal has a constant temporal relationship to said word clock.

Claim 20 (Currently Amended): The [[A]] system according to claim 19, wherein ~~in~~
~~which~~ said reception node comprises a word clock extractor configured to derive ~~for deriving~~
said word clock from said synchronizing ~~synchronising~~ features of said synchronization
~~synchronisation~~ clocking signal.

Claim 21 (Currently Amended): The [[A]] system according to claim 1, wherein ~~in~~
~~which~~ said link is a wired link.

Claim 22 (Currently Amended): The [[A]] system according to claim 1, wherein ~~in~~
~~which~~ said link comprises the physical layer of an Ethernet link.

Claim 23 (Currently Amended): A transmission node for use in a data
communications system for communicating a data signal formed of successive data elements
having a reception node[[;]], and a link providing a data connection from said transmission
node to said reception node[[;]], said transmission node comprising:

[[(i)]] a clocking signal transmitter configured to transmit ~~for transmitting~~ a synchronization ~~synchro~~ ~~nisation~~ clocking signal to said reception node via said link, said synchronization ~~synchro~~ ~~nisation~~ clocking signal having synchronizing ~~synchro~~ ~~nising~~ features occurring at a frequency lower than a data element rate; and

[[(ii)]] an assembler configured to assemble ~~for assembling~~ elements of said data signal into data frames, each data frame having a plurality of successive data elements of said data signal, for transmission to said reception node via said link, said assembler being responsive to said synchronization ~~synchro~~ ~~nisation~~ clocking signal so as to set a synchronization ~~synchro~~ ~~nisation~~ flag associated with a data frame containing a data element having a first predetermined temporal relationship with a synchronizing ~~synchro~~ ~~nising~~ feature of said synchronization ~~synchro~~ ~~nisation~~ clocking signal and to position such a data element at a predetermined position within the data frame.

Claim 24 (Currently Amended): A reception node for use in a data communications system for communicating a data signal formed of successive data elements having a transmission node and a link providing a data connection from said transmission node to said reception node[[:]], said reception node comprising:

[[(i)]] a synchronization ~~synchro~~ ~~nisation~~ detector configured to detect ~~for detecting~~ a synchronizing ~~synchro~~ ~~nising~~ feature of said synchronization ~~synchro~~ ~~nisation~~ clocking signal received from said transmission node, said synchronization ~~synchro~~ ~~nisation~~ clocking signal having synchronizing ~~synchro~~ ~~nising~~ features occurring at a frequency lower than a data element rate;

[[(ii)]] a disassembler configured to disassemble ~~for disassembling~~ received data frames to regenerate said data signal, said disassembler configured ~~being operable~~ to detect a data element associated with a set synchronization ~~synchro~~ ~~nisation~~ flag; and

[[[(iii)]]] an output unit configured to output ~~for outputting~~ a data element associated with a set synchronization ~~synchroisation~~ flag at a second predetermined temporal relationship with respect to said synchronizing ~~synchroising~~ feature of said received synchronization ~~synchroisation~~ clocking signal, said output unit comprising a time delay arrangement so that data elements from a data frame associated with a set synchronization flag are output at a predetermined delay time after said reception node receives said synchronizing feature of said synchronization clocking signal.

Claims 25-31 (Canceled).